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ABSTRACT

This paper analyzes data needs for policy purposes and is divided into three sections: (1) revenue and expenditure data; (2) human resources data; and (3) time and curriculum resources data. Federal data collection concerned with resources should identify the state as the unit of analysis, should broaden the definition of resources beyond revenues and expenditures to include people, time and curriculum, and should provide data on resource allocation and use within districts as well as resource distribution across districts. The National Center for Education Statistics (NCES) should continue to collect state aggregate revenue and expenditure data, and revenue and expenditure data for a representative sample of districts, where the sample is representative of each of the 50 states as well as the United States as a whole. More detailed data on human resources in the education system are needed not only because policy interest is forging a tighter connection between dollars and what they purchase, but also because interest in the human resource component of education is high. Time and curriculum are the other two categories of resources into which revenues are converted, and some aggregate data on these two variables are needed. (LMO)

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FEDERAL COLLECTION OF SCHOOL FINANCE DATA: NEW NEEDS FOR AN ERA OF EDUCATION REFORM

By

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In this paper I will address my comments primarily to data needs for analyzing and assessing - for policy purposes - the level, allocation and use of resources for elementary and secondary schools. I will suggest changes for data that have (or have not been) collected in the past to analyze the traditional fiscal issues in education and school finance, and will suggest a number of new types of data that are needed for analyzing issues related to education excellence concerns, which are unlikely to whither in the future.

As an overview, I will make the following general suggestions:

1. There is no question that the state is the primary actor in education policy, finance or otherwise; federal data collection should reflect this fact. Thus, data should be collected on a district and state basis; if a sample of district data are collected, which is appropriate for many data sets, the sample should be REPRESENTATIVE FOR EACH OF THE FIFTY STATES, as well as for the nation as a whole. Many fiscal data in the past have been used for state-by-state analyses even though sampling procedures technically did not produce a valid sample for each state.

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2. School finance issues now should be framed as resource not just fiscal allocation issues, since the relationship between cost and quality has been linked finally by policy pressure. The policy interest is in improving schools; resources, which are broader than money, become means to those ends. The education excellence or reform movement has forced the merger of finance analysis with education effectiveness analysis, if not totally at least to a considerable degree. Thus revenue and expenditure data should be augemented by data on what they buy such as human resources (teachers and administrators), curriculum and time.

3. The policy interest in improving schools and the link between resource analysis and education effectiveness also raises the need for data on the allocation and use of resources: money, people, time and curriculum. To provide the analyses needed for policy questions, knowing how resources are used becomes as critical information as knowing the level of resources and how they are distributed across districts. Thus, more detailed information is needed on how revenues are used, including at least expenditures by program.

In short, federal data collection concerned with resources should identify the state (1) as the unit of analysis, should broaden

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1. Analysis for federal policy targets the state as the unit but uses district data too; analysis for state policy requires district, school, classroom and student level data.

the definition of resources beyond revenues and expenditures to include people, time and curriculum, and should provide data on resource allocation and use within districts as well as resource distribution across districts.

The remainder of this paper has three sections. Section one identifies revenue and expenditure data that should be collected to conduct traditional school finance analyses which are still important, as well as some new fiscal analyses. Section two outlines data needs for human resources - teachers, administrators, other education personnell and students. Section three identifies data needs for time and curriculum.

1. REVENUE AND EXPENDITURE DATA

NCES should continue to collect state aggregate revenue and expenditure data, and revenue and expenditure data for a representative sample of districts, where the sample is representative of each of the fifty states as well as the nation as a whole. Even federal policy is now increasingly being conceived as related to and sometimes even an adjunct to state education policy; this means that federal data efforts need to have accurate data for each state, not just the nation as a whole. This probably would entail a shift in the sampling frame now used to obtain fiscal data.

For EXPENDITURES, there should be a strong push for states to collect data by program, so that NCES data can provide as much data as

possible on how revenues are used. Program expenditure data become even more important in the context of state education policy interest and the structuring of new state categorical aid programs. Many states have created new education reform categorical programs - such as Florida's writing program, California's tenth grade counseling program, and South Carolina's and Texas' preschool programs for at-risk perschoolers. Other states, like Arkansas, have established new educational standards or raised high school graduation requirements and expect increased general revenue dollars to be spent to implement those objectives. Thus there is strong policy interest in how dollars are spent locally, i.e., on what programs dollars are spent.

Thus, NCES expenditure data should include:

o EXPENDITURES BY FUNCTION such as administration (board of education, central office with perhaps a breakout for curriculum units, categorical program administration, and building administration), instruction, transportation, operation and maintenance of plant, etc. Within the instructional category, expenditures on items such as classroom teachers, special program teachers, pupil support services, curriculum development and implementation, textbooks, materials and computer hardware and software (new categories) are needed. There still is a need to know expenditures by the traditional functions; indeed, a key interest overtime is in increasing instruction expenditures.

o EXPENDITURES BY PROGRAM such as regular education; programs for special need students such as the handicapped, low achieving (or

economically disadvantaged), limited-English proficient and gifted and talented; by curriculum content area or at least broad categories of curriculum such as mathematics, science, social studies, language arts, etc.; and by elementary, middle and secondary level. Given current strong, nationwide interest in strengthening the high school curriculum, expenditures by broad categories of curriculum at the secondary level have a priority. While these data may need to be developed over a long time period, the fact is that policy interest at both the state and federal level need these data for policy analysis. My hunch is that state policy needs will provide the pressure to produce these data; federal interest in data collection of this sort, then, could give additional impetus to state efforts.

o at the least, expenditures for the general fund, restricted fund and capital fund should be gathered.

For REVENUES, NCES needs to expand the detail of data collected for both state and local revenues. Detailed data on federal education revenues have dominated the revenue side of federal data collection in the past; that detail may need to be retained for federal policy purposes. But many more subcategories of state, as well as local revenue need to be collected. Policy needs at both the state and federal level require data on state support for the general program, programs for special need student, as well as the host of rapidly increasing state education reform categoricals. The fact is that states are expanding the number of categorical programs through which funds are distributed, further restricting local discretion in resource use, but also stimulating districts to expend funds in

support of education reform objectives, for which there is generally a healthy overlap between most states and the federal government at least as suggested in The Nation at Risk report. At the local level, the major new phenomenon is the expansion of non-property tax revenues which range from local education foundations to school-business partnerships and local option sales and income taxes. These revenue sources are of interest at the state and federal level.

Thus, NCES REVENUE data should include:

o some smaller sample of federal revenues

o state revenues by such categories as general aid, transportation, and facilities; programs for special need students such as special education, compensatory education, bilingual education, vocational education and gifted and talented; and education reform categoricals such as for high school graduation requirements, content areas such as science or writing, merit schools, tenth grade counseling, longer days and years, prekindergarten or day care at schools, full day kindergarten and mentor teacher, master teacher or career ladder programs, etc

o local revenues by such categories as local property taxes, local sales taxes, local income taxes; the traditional fees and community services; and new sources such as local education foundations, fee-for-service activities of the business sort such as new day care or preschool programs, private (either parent or corporate) contributions, and a miscellaneous category which in California would include urban development grants and developers fees.

In addition, local property wealth data (adjusted by differing local assessment practices), average district household income and local property, income or sales tax rates for schools are needed. I know such data are difficult to collect in many places. But gathering them for states for which they are available would be a good first step.

By using data from other governmental agencies, data on total state and local taxes, state and local taxes per capita and per $1000 of personal income and any indicators of the character of the incidence of state local taxes would be useful in NCES compilations. NCES compiles, at least to some degree, some of these data from the Census Bureau's periodically collected data sets..

Finally, everyone uses the annual and TIMELY NEA ESTIMATES OF SCHOOL STATISTICS, although this is an expensive activity to undertake (for the NEA). The organization or at least some people in it are not convinced, and rightly so in my opinion, that data collection of this sort is worth the costs. Yet, these data are used in all timely - at least for policy purposes - analyses of resource issues across the fifty states, and are a critical data set. I would suggest that NCES collect these data or give a subcontract to NEA to continue to collect these data. The data need to be produced quickly - estimates for the current academic year need to be available mid-way through the academic year. Thus, if NCES were to collect the data, the understanding would be that publication by March was mandatory; a subcontract to NEA might be an easier route to succeed on the timely criterion. And for these data, I do not believe the NEA label makes

them suspect; the revised NEA estimates and the much later NCES figures usually differ for definitional and not accuracy reasons.

2. HUMAN RESOURCES DATA

More detailed data on human resources, i.e., the people in the education system - students, teachers and administrators - are needed not only because policy interest is forging a tighter connection between dollars and what they purchase, but also because interest in the human resource component of education is high. Indeed, many people feel that the key to success of current education reform is the ability of the country and each state to increase the number of high quality people entering and remaining in the teaching profession. A number of states, groups of deans from the top colleges of education and national groups, in fact, have decided that strengthening the teaching profession is the key to bringing about a restoration of the deteriorated excellence of the nation's schools. Finally, many states are restructuring the teaching profession by enacting career ladder, mentor teacher and master teacher programs; some states may create a new category of teacher, called the adjunct teacher - a professional in some field who teaches part-time but does not hold a teaching credential. Such a category would open the education system to high quality people without reducing standards for full entry into the teaching profession for people who want to teach full-time. In short, as the structre of the teaching profession changes, information on

teachers, including types of teachers, becomes important. Finally, since teacher compensation is being changed to conform to the elements of the new structures, more information on teacher compensation also is needed.

Thus, NCES teacher and administrator data should include the following:

o numbers (FTE) of classroom teachers by teaching area (elementary, mathematics, science, language arts, social studies, art, music, etc.) and by special program (compensatory education, bilingual, special education, gifted and talented)

o numbers (FTE) of nonclassroom professionl personnell such as guidance counselors, psychologists, etc.

o numbers of teachers entering and leaving the above categories each year

o numbers (FTE) of teachers at different levels in a career ladder, numbers of master teachers, numbers of mentor teachers, or whatever categories states use for new structures. At some time, the data could be organized into a limited number of discrete, generic categories such as career ladders, master or mentor teachers, etc.

o numbers (FTE) of teachers working 10, 11 and 12 month contracts

o any measure of quality of those entering, remaining or leaving - score on a national teacher exam if one is given, perhaps the NTE until that time period; area in which degree earned (education, a discipline such as mathematics, science, English, history, etc); quality of college attended (using some list that ranks

colleges and universities into a small number of quality levels); SAT or ACT score; or whatever.

o numbers of adjunct teachers, teachers with "emergency" or "waiver" credentials, paraprofessionals working in the classroom, etc.

o numbers (FTE) of administrators - central office line staff, curriculum coordinators and central office curriculum staff, staff development, building principals, assistant principals, assistant principals for instruction.

The idea would be to begin identifying new categories within which to group teachers or in which states are now grouping teachers, show where those categories are being used and how many new teachers are in each one. The data might be fragmentary for awhile, but would show the evolving nature and structure of the teaching profession. Fragmentary data are acceptable when reported on a state-by-state basis. The need for data on the evolving structure of the teaching profession highlights the need to focus on the state level.

NCES data for teacher compensation expenditures would include the following:

o average, median, minimum and maximum beginning salary

o average and median salary

o average, median, minimum and maximum top salary

o numbers of teachers by years of experience as well as by educational attainment - M.A., Ed.D., Ph.D.

o total spent for base salaries, career ladders (total for each ladder), mentor teacher, master teacher or merit teacher programs

o total for benefits, and amount for for each benefit - pension, health, dental, life insurance, etc.

o similar data for administrators and noncertified personnell.

Student data suggestions are given here in the human resource section of the paper. Many of these student data are now collected; I list them only to emphasize that their collection should continue. NCES STUDENT data should include:

o Total FTE, ADA and ADM (although an FTE figure would suffice) and by elementary, middle and secondary level

o Total FTE by ethnic background (Anglo, Black, the categories of Hispanic, Asian American, Native American, etc.) and in special programs - compensatory education, bilingual education, special education, gifted and talented.

Enrollment projections for the nation and if possible for each state should be given every two to three years; most people were surprised by declining enrollments in the 1970s. If the lesson then was to watch trends, the lesson soon was forgotten; most have been surprised by increasing enrollments in the 1980s. Some states produce enrollment projections; others do not. Highlighting enrollment trends nationally at least would keep trends in the numbers and types of students more in the public eye.

For all these human resource data, I am probably suggesting an expansion of the common core data now collected each fall; the new data I have suggested for teachers is critical since significant changes in the structure of the profession are evolving, turnover of those now in teaching will be substantial in the next ten years due to

retirements, and newly hired teachers will be numerous due to teacher retirements and rising enrollments in the next ten years. Collecting ad analyzing these data will be crucial for education policy interests at least over the next decade and a half.

3. TIME AND CURRICULUM RESOURCES DATA

Time and curriculum are the other two categories of resources into which revenues are converted, and both time and curriculum content are areas of high interest for most education excellence reforms. Thus, some aggregate data on these two variables are needed, even though variations in time and curriculum for individual students over time are the key data needed for analyzing the true impacts of these variables. Nevertheless, the macro-context of time and curriculum issues also is important. In addition, no organization systematically collects the type of data mentioned below and reports it periodically.

Thus, NCES TIME data should include:

o length of school year and day for teachers and for students by elementary and secondary level, preferrably in days and minutes.

o allocated times for instruction, by some categories of content areas (mathematics, language arts and science at the elementary level, and academic areas such as mathematics, science, language arts and social studies at the secondary level)

NCES CURRICULUM data should include:

o high school graduation requirements adjusted to some common norm across states

o numbers of secondary student course sections (adjusted to some standard such as number of sections per 1000 students and adjusted for enrollment fluctuations) by academic areas (mathematics, science, language arts, social studies, fine arts, performing arts, etc.) and numbers of specific courses within academic areas such as algebra I, algebra II, geometry, calculus, general mathematics, etc. for mathematics.

SUMMARY

In sum, future NCES collection of school finance data should have the following characteristics:

o focused on the state as the unit of analysis - sample district data should produce a valid sample for each state

o broadened to include resource and not just fiscal data now that policy issues have linked school finance with school effectiveness

o additional detail on state and local revenue

o expanded information on expenditures such as expenditures by program

o expanded detail on teachers - numbers by type (career, mentor, master, etc.), quality entering and remaining in the profession, and expenditures for base salaries as well as increments for career ladders, mentor or master teacher programs

o additional information on time and curriculum.